

STONERIDGE DAM
FCD GAGE ID# 5968

STATION DESCRIPTION

LOCATION – The dam and gage are located in the town of Fountain Hills. Access to the gage is from Fountain Hills Boulevard and Cholla Drive. Latitude N 33° 35' 41". Longitude W 111° 44' 01". Located in the NW1/4 NW1/4 S22 T3N R6E, in the Granite Reef Dam 7.5-minute USGS quadrangle.

ESTABLISHMENT – The gage was installed on December 11, 1996.

DRAINAGE AREA – 0.86 mi²

GAGE – The gage is a pressure transducer type instrument. The transducer diaphragm is at 0.87 feet gage height.

ZERO GAGE HEIGHT - is defined as 1,678.86 feet M.S.L., which is the elevation of the outlet invert.

HISTORY – No known history prior to installation. Gage installed December 11, 1996.

REFERENCE MARKS –

RM1 – was established November 19, 1996 as a mark on the top of the inlet headwall and was marked with green paint. Elevation 4.00 feet gage height, or 1,682.86 feet M.S.L., levels of November 19, 1996.

RP1 – is the inlet invert elevation. Its elevation is 0.00 feet gage height, or 1,678.86 feet M.S.L. from the G.V. Sabol Fountain Hills North ADMS.

CHANNEL AND CONTROL – The primary outlet for the dam is a 30-inch RCP, 240 feet in length. The auxiliary outlet for the dam is a spillway on the left side of the dam.

PRIMARY / AUXILIARY OUTLET –

The primary outlet is a 30-inch diameter reinforced concrete pipe. The culvert inlet is at elevation 0.00 feet gage height, or 1,678.86 feet M.S.L. The culvert invert at the outlet is at elevation (undetermined) feet gage height, or (undetermined) feet M.S.L. Length of the culvert is 240 feet.

The auxiliary outlet is the spillway on the left side of the dam. The spillway crest elevation is 23.8 feet gage height, or 1,702.7 feet M.S.L.

Top of dam elevation is at about 31.1 feet gage height, or 1,710.0 feet M.S.L.

RATING – The rating for the discharge is from an analysis by G.V. Sabol for the Fountain Hills North ADMS. The current discharge rating is Rating #1.

The capacity rating is also from the Fountain Hills North ADMS. The current capacity rating is Rating #1.

DISCHARGE MEASUREMENTS – It may be possible to capture a discharge measurement from the outlet channel. Flows through the auxiliary spillway are probably too dangerous to attempt.

POINT OF ZERO FLOW – The point of zero flow is the invert of the outlet culvert, at 0.00 feet gage height.

FLOODS / SIGNIFICANT IMPOUNDMENTS – The peak event of record occurred on August 31, 1999 at a stage of 7.15 feet gage height, and 2.1 acre-feet.

REGULATION – Stoneridge Dam regulates flows through the natural wash.

DIVERSIONS – None known

ACCURACY – Good

JUSTIFICATION – Monitor flows and impoundments in Stoneridge Dam for safety in the town of Fountain Hills.

UPDATE – August 18, 2011
D E Gardner